

WHAT IS CLAIMED IS:

1. A method for drying a printing ink on a printing substrate in a printing press comprising the steps of:
 - using at least one printing ink having at least one color pigment to print on the printing substrate at one position of a path, the printing substrate being conveyed through the printing press along the path; and
 - subsequently to the using step, illuminating the printing substrate with light from a laser light source at at least one further position of the path, the light having a wavelength of between 350 nm and 700 nm and being resonant to an absorption wavelength of the at least one color pigment of the at least one printing ink.
2. The drying method as recited in claim 1 wherein the wavelength of light is between 450 nm and 750 nm.
3. The drying method as recited in claim 1 wherein the wavelength of light is resonant to an absorption maximum of the at least one color pigment of the at least one printing ink.
4. The drying method as recited in claim 1 wherein the wavelength of light is not resonant to absorption wavelengths of water.
5. The drying method as recited in claim 1 wherein the using step includes printing the printing substrate at a plurality of positions of the path with a plurality of different printing inks, each printing ink having at least one different color pigment, and the illuminating step includes, at at least one further position of the path, illuminating the printing substrate with light of a plurality of different wavelengths, in each instance, one of the different wavelengths being resonant to one of the absorption wavelengths of the different color pigments.
6. The drying method as recited in claim 5 wherein the at least one further position of the path includes a plurality of further positions, and the illuminating step includes, at the plurality of further positions of the path, illuminating the printing substrate with one wavelength chronologically later than the printing using one of the plurality of printing inks

to whose color pigment the wavelength is resonant, and chronologically before the printing using a different one of the plurality of printing inks not yet used in printing.

7. The drying method as recited in claim 5 wherein the illuminating step includes, at the at least one further position of the path, illuminating the printing substrate with light of the plurality of different wavelengths chronologically after being printed on with the plurality of printing inks.

8. A print unit comprising:

at least one laser light source as recited in claim 1,

wherein light from the at least one laser light source has a wavelength of between 350 nm and 700 nm.

9. The print unit as recited in claim 8 wherein the laser light source is a semiconductor laser, a gas laser, a solid-state laser, a diode-pumped, frequency-multiplied solid state laser, or a frequency-multiplied semiconductor laser.

10. The print unit as recited in claim 8 wherein the at least one laser light source includes a plurality of laser light sources being arrayed in a one-dimensional field, a two-dimensional field, or a three-dimensional field, and light from the plurality of laser light sources striking the printing substrate at a plurality of positions.

11. The print unit as recited in claim 8 wherein light incident to the printing substrate at a position is controllable in intensity and/or illumination duration for each laser light source.

12. The print unit as recited in claim 8 wherein the wavelength of laser light source is 430 nm +/- 20 nm, 442 nm +/- 20 nm, 457 nm +/- 20 nm, 473 nm +/- 20 nm or 532 nm +/- 20 nm.

13. The print unit as recited in claim 8 wherein the at least one laser light source includes at least two laser light sources, light from the at least two laser light sources being incident to the printing substrate at one position.

14. A printing press comprising at least one print unit as recited in claim 8.
15. A printing press comprising:
 - at least two print units including a downstream print unit, the downstream print unit having the plurality of laser light sources suited for implementing the method as recited in claim 7, light from the laser light sources having a plurality of wavelengths of between 350 nm and 700 nm.